ORIGINAL ARTICLES

FRONTIERS OF MEDICINE STILL LIE AHEAD*

ADDRESS OF THE PRESIDENT

By Charles A. Dukes, M.D. Oakland

SPEAKING before the medical graduates of the University of the Pacific in 1862, Dr. Henry Gibbons said: "You enter the profession at the most interesting period that has ever marked its history. It is the day of great achievements."

These words are as applicable today as when they were uttered by Doctor Gibbons seventy-eight years ago. Today and every day is always the day of great achievement in medicine. The frontiers of medicine still lie ahead!

MEDICINE'S STRUGGLE

There are many here who have watched the struggle of medicine upward, from the clinging witchery of ignorance, fear and superstition, to become the greatest factor for the advancement of the human race in the world today; and indeed, this struggle has contributed in no small measure to that advancement here in California. Yours is a glory that shall inspire future generations, even as you were inspired to higher achievements by the great men of yesterday.

TOMORROW WILL BE AS TODAY

To the younger physician, standing on the threshold of tomorrow, let me say we wish you well and cheer you on, and perhaps watch you enviously; for when the tomorrows become your todays, you, too, will have begun to blaze new and glorious trails in the onward march of medicine.

Much has been accomplished: much, much more remains to be accomplished.

Let me suggest that the fate of Aesculapius, the Greek god of medicine, is not likely to be yours. Aesculapius, you will recall, became so proficient in the healing art that Pluto accused him of diminishing the number of shades in Hades; and he was, therefore, destroyed by the thunderbolt of Zeus.

MISINTERPRETATIONS OF PARÉ AND GROSS

Paré, in the preface to his work on surgery in 1582, said, in effect, that, excepting for unimportant details, nothing more was to be added to the science of surgery.

Within the memory of living man, in 1882, three hundred years after Paré's discouraging pronunciamento, Dr. Samuel D. Gross, as president of the American Surgical Society, boldly stated: "All avenues of approach to surgery have been investigated."

Nothing was left for the surgeons in the future, beyond acquiring what was already known, but perfecting their technique. Yet I should not have the time, even if you had the patience, to recount the achievements in surgery during our brief span of time on earth.

CALIFORNIA MEDICINE IN ITS INDIAN, SPANISH, AND AMERICAN PERIODS

The years have not been so many since the only medicine practiced in California was that of Indian lore. Then came the days of the Spanish Californians and, finally, the Americans. Again, within the memory of many here today, the first telephone in a physician's office was installed—an event, by the way, which inspired no little acrimonious discussion among the more conservative of our profession.

CALIFORNIA EPISODES

Nor have the years been so many since the San Francisco fathers soberly debated the advisability of spending money for a hospital when it was sorely needed for a jail—finally, compromising by renting an abandoned ship in the harbor!

About this time the Chinese brought to our shores, along with their various diseases, the medicine of their forefathers, not the least of which was Li Po Ti's famous "cure" for cancer, which included such tasty remedies as pickled lizards, rattlesnake's tails, bird's claws, and coffin nails. For a good many years, until the newly formed medical societies began to evince a civic consciousness, quackery in its every form flourished openly in the large population centers.

That seems a long time ago. But 1901 was not so very far back, and then we found San Francisco plague-ridden, with city and state and federal authorities locked in a bitter struggle. Said some: A quarantine against plague-carrying ships would retard commercial progress, the word would spread and the fair name of the city would be clouded. The Governor of California, spokesman for certain interests, in the face of undeniable proof presented by bacteriologists of the State Board of Health, therefore declared there was no plague. It required a neutral federal commission, plus the untiring efforts of the medical profession, to establish a quarantine and, of course, a state-wide scandal resulted. It is significant, I think, that a physician sat in the governor's chair after the next election. He was Dr. George C. Pardee, today one of Oakland's most valuable citizens, honored by his fellowmen for unselfish devotion to the welfare of his community. As Governor at the time of the San Francisco fire, Doctor Pardee safeguarded the health of the city through prompt sanitary measures and thus prevented the fire disaster from becoming also a health disaster overnight.

CALIFORNIA MEDICINE: AMERICAN PERIOD

Medical history, like any other history, is valuable only in proportion to the understanding we are able to derive from it. California's medical history, due to a variety of natural factors, is perhaps more exciting than that of any other state. We have spoken of the development of medicine through three occupancies—Indian, Spanish Californian, and American. Through the early period

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of the American phase the spirit of adventure and the lure of easy riches were the paramount motivating forces in the land. I suspect that many a good physician responded to the spirit of the times and was lost to his profession.

Yet all through that period we hear the occasional bells of truth ring forth—harbinger of a better tomorrow. We see grave and earnest men in this pioneer land quietly devoting their lives to the science of medicine as they knew it: ever reaching outward for new truths; struggling against the clutching talons of superstition and ignorance that stretched out from the past; knowing, in their hearts, that they were as children on the threshold of a new and thrilling future. Even as you and I!

We may say to ourselves that life was simple then. But life was *not* simple. Life never is simple to the living generation, and is less so now than ever before. The physician of early California was obliged to practice under the most trying difficulties, not all of them physical; even then the birth pains of social change were beginning to be felt. To us, it may seem that all the elements of social change were being gestated in the womb of time, to be laid finally, squalling, on our doorstep.

CALIFORNIA PHYSICIANS' SERVICE

Just as we have dedicated ourselves to the advancement of scientific medicine, so we have recently devoted a part of our time and energies to this strange new child, which is neither of scientific birth nor medical parentage. We have taken this nameless offspring into our home and have placed it under the care of a competent nurse in the form of the California Physicians' Service.

The young physician about to take over his share of the obligations of medicine in California will not, if he is wise, congratulate himself that he will be rid of this particular one. On the other hand, he will do well to take a postgraduate course in social medicine and its care and upbringing. Just as the tomorrows will bring better methods and techniques, new discoveries in medicine and surgery, so will they bring new problems in the economic relationship of the physician to the people.

DRAPER'S CONCEPT OF A PHYSICIAN

In this connection, I like to ponder the wisdom of George Draper, who said: "A priest is said to be a man of God. But a physician is properly a man of men. He must live with men, work with them, fight with them, crawl, walk, and run with them, know the stench of their bones and the music of their souls, and accept them. Only thus can he learn neither to fear nor to despise anything they may do or be. Only thus can the doctor apprehend the nature and language of men."

These words I interpret as a warning to those among us who prefer to live remotely with the gods, as individuals above and removed from the common clay. If we are properly men of the people, we cannot live remote from the people. Their problems become ours; we must not hold ourselves aloof. We perhaps remained aloof too long when, in the black depression years, distant rumblings

presaged a changing era in the field of medical and hospital service for a rapidly expanding, low-income group.

THE AMERICAN PHYSICIAN OF TODAY

Speaking on this subject, Dr. Nathan B. Van Etten, now President of the American Medical Association, had this to say:

The American physician represents the most highly educated group of the community, but he rarely functions as a citizen. How can the medical profession expect consideration from our lawmakers while the physician stands aloof from the actual exercise of citizenship? It seems more important now than at any time in our history that physicians should take positions of leadership in public activities. Someone has said recently that many people pass unconsciously from adolescence to obsolescence. Unless American physicians can be aroused from their civic adolescence, a similar judgment will be their inheritance.

Doctor Van Etten's words merit serious consideration. While it is true that here in California a good many physicians are giving a share of their time to public affairs, it is equally true that they represent a very small minority of the profession. I should say, however, that the giving by a physician of his time and efforts toward a solution of the economic problem as it applies to the physician and his patient, is doing the part of a good citizen.

The medical profession has been accused of being out of step with the times. That is a false accusation. Our business is to heal and to prevent sickness, and unless we can reach that goal our work has gone for naught. The painter strives to achieve a great painting, the poet a great poem, the writer a great book; and it is so with us. We strive to fulfil the obligations which go with our calling—to heal, to make well, to prevent illness.

MEDICAL ECONOMICS

It is unfortunate that in the noble profession to which we are dedicated, the matter of paying for medical care must be considered a prime essential. Yet such is the case. The physician also has a family to support, and his personal problems are no different from those of the patients who come to his office. Yet he is fully aware of the necessity for some plan, some system, by which the average man can receive medical and hospital care, and at the same time retain his self-respect as a good citizen.

The necessity for such a plan was driven home to me on a recent tour of the State in which, in my official capacity, I visited the medical societies of thirty-four counties.

MEDICAL SERVICE THROUGH CALIFORNIA PHYSICIANS' SERVICE

One of the country's outstanding experiments in the budgeting of medical costs is the California Physicians' Service, sponsored by the California Medical Association. The California Physicians' Service does not make any change in the costs of medicine and hospital, but does show the way for the patient to meet his bills, and therefore, of course, tends greatly to enlarge the physicians' field of endeavor. Again I wish to emphasize this point: the California Physicians' Service does not repre-

sent an effort to reduce income to the member physicians. Its set-up is designed to aid equally the beneficiary member and the physician member, without loss to the former of the usual high quality of service to which he is entitled, nor to the latter of the usual prerogatives of the physician. It is strictly a nonprofit institution and is operated on a very small overhead. It maintains in every way the time-tried relationship of physician and patient.

This activity, of which you will hear more this morning, needs and deserves the active coöperation and participation of every physician.

If a changing manner of payment for medical services is an inevitable and integral part of modern times, then it follows that the charging of exorbitant fees has no place in the picture; for this practice not only tends to alienate the public, but also is being frowned upon by our profession. I have undertaken to show that the medical profession can no longer remain remote from the people. More and more, through various channels, we are taking the public into our confidence. But no physician can long succeed who regards his patients as a gold-bearing placer mine, to be worked to the fullest and then cast aside for fresh ground.

VITAL STATISTICS IN THE UNITED STATES

Under the American system of medical service, American people have become the healthiest in the world. They live from 15 to 20 per cent longer than the people of any other country. At the same time the cost of medical care in this country has been greatly reduced, and this without disturbing the relationship of physician and patient. American medicine has met every new emergency in the economic field, just as it has in the medical field. The American medical profession stands ready at all times to serve, regardless of ability to pay, and the sooner politicians acknowledge this truth the sooner will the problems be solved. We have made amazing strides in this direction, but the goal has not yet been reached. The answer may lie with the future generations of physicians. At least we have dealt with the problem to the best of our collective abilities, and I believe to the great and lasting benefit of the public we serve.

CANCER COMMISSION OF THE CALIFORNIA MEDICAL ASSOCIATION

I am sure I would be remiss in my duties as president if I did not mention the work of the California Cancer Commission. You will have examined the Commission's published report and its various committees—all of whom I want to thank for the part they have taken in amassing the information which went into its pages. In fact, 250 physicians took part in the survey, which brought home to California all the available knowledge of cancer, filtered and tested for truth, that it might serve as a guide and a working model for future generations. The Commission made what it believes to be the first organized attempt in this country to set forth the opinion of the medical profession, rather than of one individual or clinic, or even of one specialty.

There is one highly significant statement in the introduction to the Commission's findings which I wish here to emphasize for the especial attention of the younger physicians. It is this:

". . . many questions of cancer therapy cannot be answered finally today for lack of sufficient experience."

And also this concluding statement:

"It is the hope of the Commission that, in a future review of these studies, in the light of accumulated world experience, it may be possible to answer more fully many of these unsettled questions." The Commission hopes to make this review at an early date.

It is not too much to hope that physicians of the younger generation will live to see the day when all questions concerning cancer will have been answered as in many other diseases, such as typhoid, diphtheria, and tuberculosis.

The great laboratories and clinics of the world have provided sound bases upon which to build. Notable results have been achieved here in California in the treatment of early cases, due to perfected technique in surgery, and in x-ray and radium therapy. I, for one, cannot accept any skeptical theory that the end has been reached; or, as the good Doctor Gross would say: "All avenues have been investigated." On the other hand, I believe that the accomplishments of today will be the inspiration and incentive of tomorrow. In this spirit the search for the causes of cancer will move inevitably forward.

FIRST USE OF DIPHTHERIA ANTITOXIN IN SAN FRANCISCO

To the best of my knowledge, Dr. Joseph Oakland Hirschfelder was the first to administer diphtheria antitoxin in San Francisco. This was about 1895. He was then Professor of Clinical Medicine at Cooper Medical College. He brought antitoxin from Europe for use in his clinic. This was a milestone in the life of your speaker, who at that time was undergraduate clerk in Doctor Hirschfelder's clinic and, as such, witnessed this epochal event. A true Californian, Doctor Hirschfelder was the first white child born in Oakland and was graduated from the University of California. He was a courageous pioneer in medicine, whose name will always sparkle through the pages of medical history.

OTHER ACHIEVEMENTS

We have seen the plague, typhoid, and malaria stamped out and the health of communities safeguarded through proper sanitation measures. Heart and brain surgery have achieved new heights. The mysteries of yesterday have become the knowledge of today.

Modern medicine has been called "the child of the nineteenth century." It has advanced to a point where no man can know or practice every branch, and the growth of specialism is the inevitable result. It behooves the young physician to evaluate his inclinations and training for some particular branch, lest he find himself in the unenviable position of an impecunious Jack-of-all-trades, his long years of training largely wasted.

THE TODAYS AND THE TOMORROWS

We have heard it said that there are no more frontiers in America. But that refers to physical frontiers. In medicine, the frontiers are farther and farther beyond the horizon, giving lie to the lament that youth no longer has a chance. These are the tomorrows that are destined to become your glorious todays, for, as I have said, today is always the day of great achievements in medicine.

A PRAYER OF THE PHYSICIAN

In conclusion, I should like to recite the following "Prayer of the Physician," the author of which is unknown to me:

O God, I pray that I may have absolute intellectual honesty. Let others fumble, shuffle and evade, but let me, the physician, cleave to the clean truth, assume no knowledge I have not, and claim no skill I do not possess.

Cleanse me from all credulities, all fatuous enthusiasms, all stubborness, vanities, egotism, prejudices, and whatever else may clog the sound processes of my mind. These be dirt: make my personality as aseptic as my instruments.

Give me heart, but let my feeling be such as shall come over me as an investment of power, to make my thoughts clear and cold as stars, and my hand skillful and strong as steel.

Deliver me from professionalism, so that I may be always human, and thus minister to sickly minds as well as to ailing bodies.

Give me a constant realization of my responsibility. People believe in me. Into my hands they lay their lives. Let me, of all men, be sober and walk in the fear of eternal justice. Let no culpable ignorance of mine, no neglect, nor love of ease, spoil the worth of my high calling.

Give me the joy of healing. I know how far short I am of being a good man, but make me a good doctor. Give me that love and eagerness and pride in my work, without which the practice of my profession will be fatal to me and to those under my care.

Give me a due and decent self-esteem that I may regard no man's occupation higher than mine—envying not the king upon his throne, so long as I am prime minister to the suffering.

Deliver me from playing at precedence: from hankering for praise and prominence: from sensitiveness, and all like forms of toxic selfishness.

Give me money: not so little that I cannot have the leisure I need to put quality into my service; not so much that I shall grow fat in head and leaden in heart, and sell my sense of ministry for the flesh-pots of indulgence.

Give me courage, but hold me back from overconfidence.

Let me so discharge the duties of my office that I shall not be ashamed to look any man or woman in the face. Grant that when, at death, I lay down my task, I shall go to what judgment awaits me, strong in the consciousness that I have done something towards alleviating the incurable tragedy of life. Amen.

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ENDOCRINOLOGY: A CRITICAL APPRAISAL*

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PART I

T is impossible to include in a single paper of reasonable length a complete review of all that is known of the endocrine glands; it will be necessary to deal briefly with some of them. An effort will be made to emphasize facts and to acknowledge assumptions. The cold hard truth is that few facts are known about some of the endocrine glands; why not admit it? Why must some pseudopharmaceutical firms give the impression in their pseudoscientific publications that endocrinology is an exact science and that administration of their preparations will effect a cure? For example, let it be stated that there is no good evidence that the oral administration of any anterior pituitary substance ever helped any patient in any way, except, perhaps, through the medium of suggestion. Why not acknowledge that much of the "endocrine therapy for glandular imbalance" is entirely worthless? Furthermore, let us as members of the medical profession be honest enough to admit that with recent advances in chemotherapy some of the material placed at our disposal may, if improperly used, be definitely harmful.

These intemperate remarks are not meant to reflect doubt on the excellent work being conducted by well-trained men; nor do they refer to the excellence of most of the articles appearing in established publications. They constitute, rather, an appeal that we, as physicians, utilize our powers of discrimination in separating the good from the bad, the true from the false. Let us be honest with ourselves and our patients by admitting our own incomplete knowledge; honesty is preferable to omniscience.

While no claim will be made to completeness, the following is an effort to list some of the accepted facts regarding the endocrine glands. Space prevents detailed discussion of any of them and some will be dealt with in a most cursory fashion.

THE THYROID

This gland and the syndromes which result from either its hyperfunction or its hypofunction are well recognized and, for the most part, are well treated. The treatment of choice for all adenomatous goiters with or without hyperthyroidism and for all cases of exophthalmic goiter is the surgical resection of the offending gland. Results of no other treatment can compare with the good results which follow the skillful surgical removal of a goiter. It should be added that all adenomatous goiters without hyperthyroidism should be removed, for many of these become active some time during the individual's life and virtually every case of carcinoma of the thyroid has its origin in an

^{*} From the Division of Medicine, The Mayo Clinic, Rochester, Minnesota.

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